WP 6
T6.3 Social Impact Study

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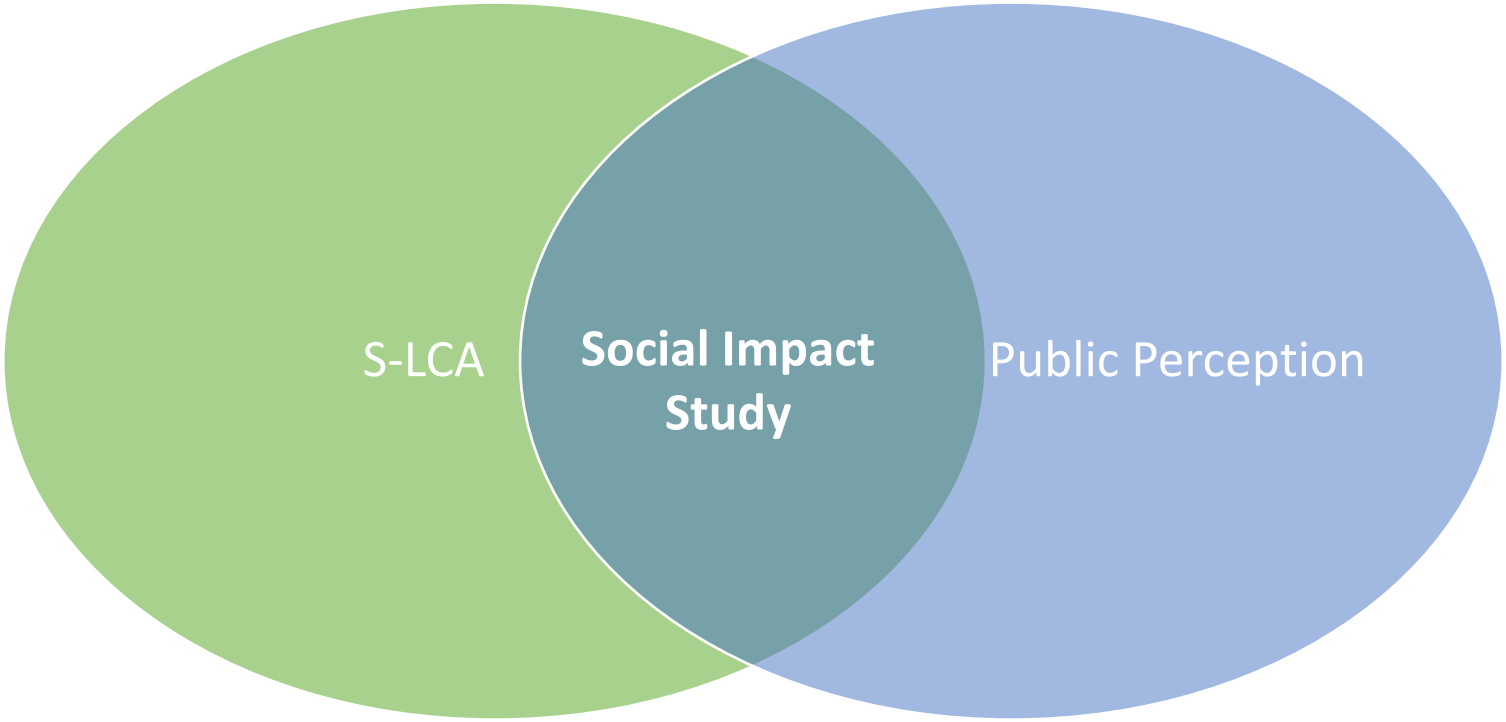
Acknowledgment

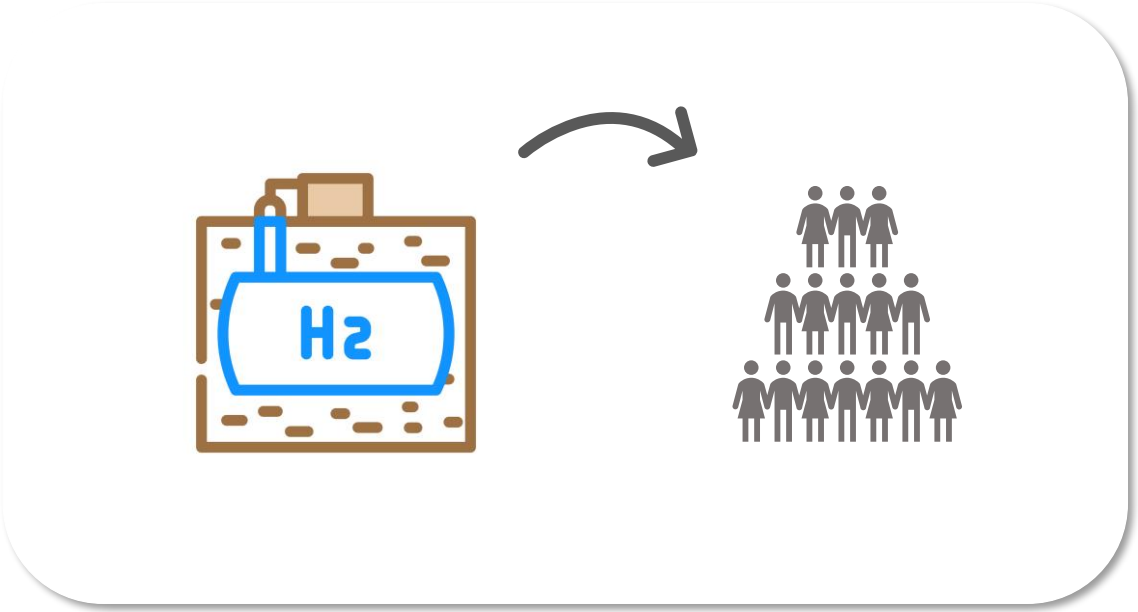
The Project is co-founded by European Union

Introduction

Social Impact Study – developed under Hystories Project in the framework of WP6, combines elements of Social Life Cycle Assessment (S-LCA) based on the ISO14040 and ISO14044. The study additionally takes into consideration the public perception on the implementation of underground green hydrogen storage technologies.



Objectives



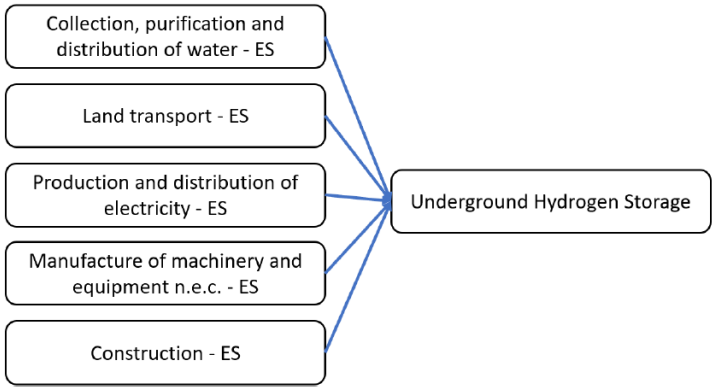
The task 6.3 has been dedicated to develop **Social Impact Study** conducted with the use of elements of the Social Life Cycle Assessment (S-LCA) methodology, tailored and combined with the social perception study in order to present public opinion and beliefs together with spotting potential social impacts related with the deployment of underground large-scale hydrogen storage and its impact on different types of stakeholders including **workers**, **society** and **local community actors**.

Methodology

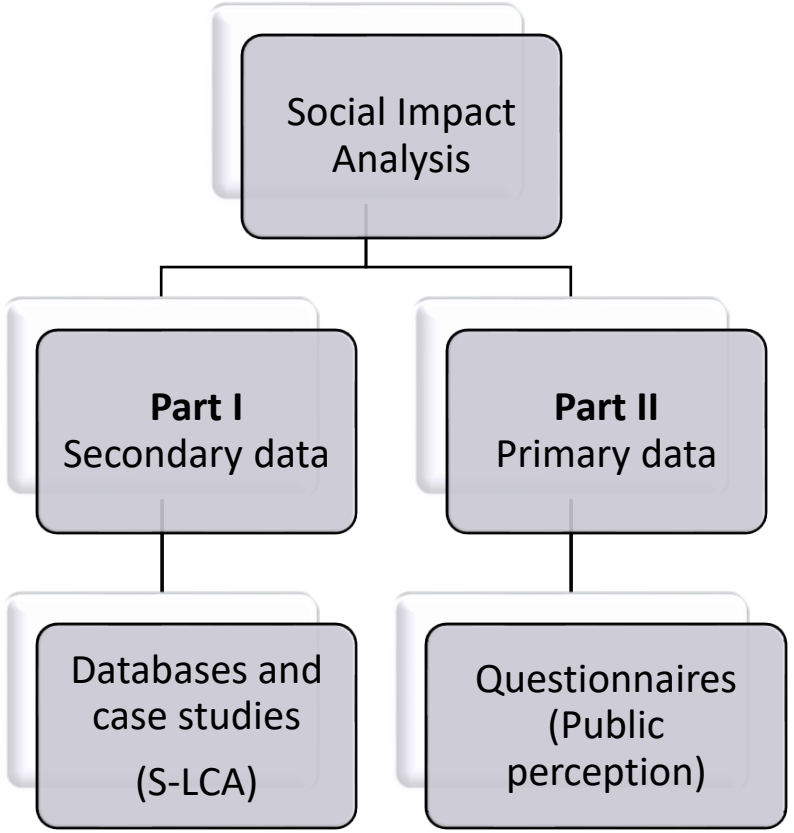
Part I
Secondary data

PSILCA

OPENLCA

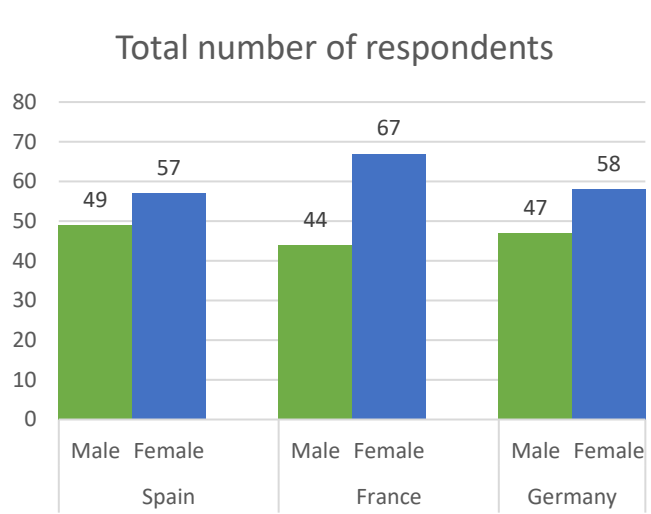


> D6.4 Social impact of the underground H2 storage



Part II
Primary data

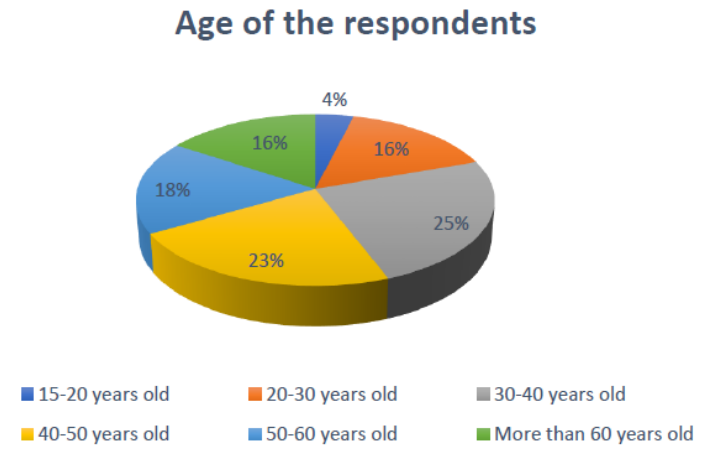
VOXCO

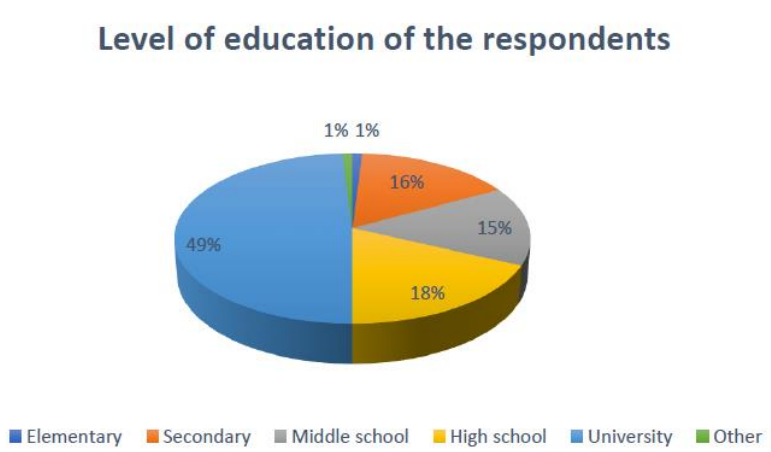


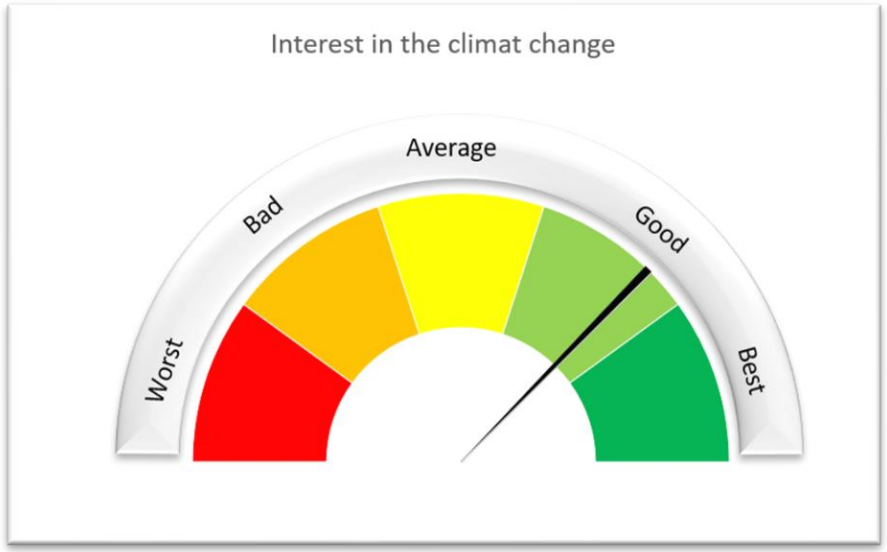
Results

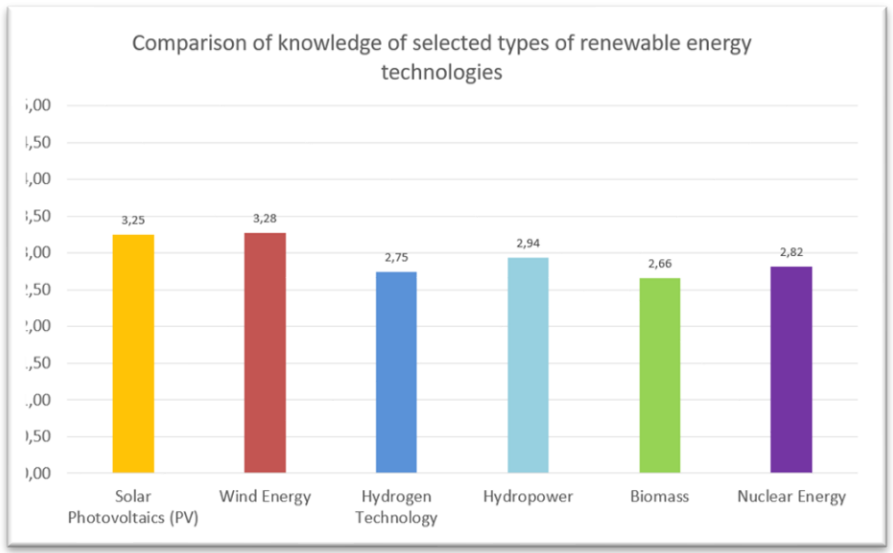
They survey consisted of:

1) Baseline questions
2) Measuring awareness
3) Influencing factors







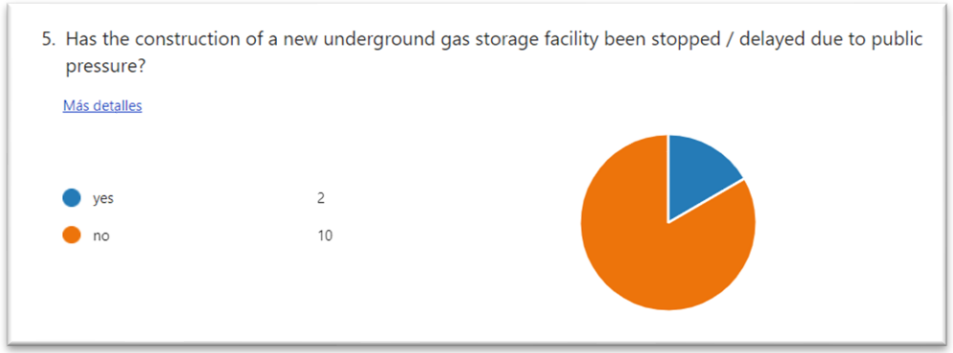


Results

Section	Question	Score
1 Baseline questions	Interest in the climate change	3,70
	General level of knowledge of renewable technologies	3,23
	The degree of belief regarding the contribution of renewable technologies to environmental impact reduction	3,39
	The degree of belief in the need of increasing the share of renewable energy	3,00
	Level of knowledge of energy storage	3,00
	General level of knowledge of hydrogen and hydrogen technologies	2,73
	Level of knowledge of underground storage technology	2,54
2 Measuring awareness	The degree of belief in the hydrogen´s potential for environmental improvement	3,36
	The degree of perception of hydrogen as a good alternative fuel	3,40
	Assessment of the perception related with risk associated with the implementation of hydrogen as an energy vector	3,11
	The degree of belief about hydrogen´s possible contribution to the reduction of reliance on fossil fuels	3,40
	Attitude towards underground hydrogen storage	3,22
	Rating of hydrogen storage technology as an alternative for other types of energy storage	3,24
	Perception related with safety of underground hydrogen storage technology	3,19
	The degree of belief in the underground hydrogen storage´s contribution to CO2 emission reduction	3,35
	The degree of belief in the underground hydrogen storage´s contribution to increasing the security of the European energy system	3,28
3 Influencing factors	Perception about the negative influence of traffic during the construction phase on the opinion about the deployment of UHS	3,04
	Degree of uncertainty related with underground hydrogen storage	3,07
	Perception of the contribution of the underground hydrogen storage site deployment on job creation	3,27
	Perception of the underground hydrogen storage´s contribution to the noise pollution during its normal operation	2,96
	Willingness to live in the proximity of an underground hydrogen storage site	2,79

Results

The **dialogue** with local community, **dissemination actions** and general **awareness rising** activities are key measures that could prevent the possible negative consequences of public pressure and ensure successful underground hydrogen storage site deployment.



"**Not in My Backyard**" syndrome characterizes by the fact that people might be positive about some certain technology, however their attitude changes dramatically if this technology would to be implemented near their place of residence.

Thank you !

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